

RECEIVED

96 APR 17 AM 8:18

~~GROUP 260~~  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No. 5634.114

Inventors: John C. Harvey and James W.  
Cuddihy

Serial No.: 08/444,758

Filing Date: May 19, 1995

For: Signal Processing Apparatus and  
Methods

Group Art Unit: 2602/348

Examiner:

Assistant Commissioner for Patents  
Washington D.C. 20231

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56(a) and in conformance with the procedures of 37 C.F.R. §§ 1.97-98 and M.P.E.P. § 609, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449.

The above-referenced application claims priority under 35 U.S.C. § 120 of the following applications:

| <u>Serial No.</u> | <u>Filing Date</u> | <u>Patent No.</u> |
|-------------------|--------------------|-------------------|
| 08/113,329        | August 30, 1993    | Pending           |
| 08/056,501        | May 3, 1993        | 5,335,277         |
| 07/849,226        | March 10, 1992     | 5,233,654         |
| 07/588,126        | September 25, 1990 | 5,109,414         |
| 07/096,096        | September 11, 1987 | 4,965,825         |

Applicants believe that all references cited on the attached Form PTO-1449 were submitted to the PTO in co-pending U.S. Patent Application Serial No. 08/448,143, filed 23 May 1995. Therefore, no copies of the listed references are provided herewith.

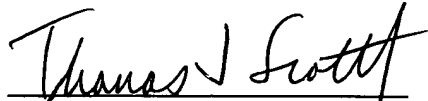
D. Johnson  
#5 521-96  
EDS. w/Refers  
PATENT

It is respectfully requested that the information above be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

CERTIFICATION AND/OR FEE

Since this IDS is being filed pursuant to 37 C.F.R. § 1.97(b) before the later of three months after the filing date of the above-referenced application or the date of receipt of the first Office Action on the merits, no certification or fee is required.

Respectfully submitted,



Thomas J. Scott, Jr. (Reg. No. 27,836)

Dated: April 4, 1996

HOWREY & SIMON  
1299 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004-2402  
(202) 783-0800 (telephone)  
(202) 383-6610 (telecopier)

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

SEP-5 1995  
 11:00 AM

### U. S. Patent Documents

| Examiner Initial | Patent Number | Patent Date | Name             | Class / Subclass | Filing Date * |
|------------------|---------------|-------------|------------------|------------------|---------------|
|                  | 2,875,270     | 2/24/59     | Wendt et al.     | 178/5.1          |               |
|                  | 3,440,427     | 4/22/69     | Kammer           | 250/210          |               |
|                  | 3,485,946     | 12/23/69    | Jackson et al.   | 178/6            |               |
|                  | 3,500,327     | 3/10/70     | Belcher et al.   | 340/154          |               |
|                  | 3,560,936     | 2/2/71      | Busch            | 340/172.5        |               |
|                  | 3,564,509     | 2/16/71     | Perkins et al.   | 340/172.5        |               |
|                  | 3,696,297     | 10/3/72     | Otero            | 325/55           |               |
|                  | 3,712,956     | 1/23/73     | Lemelson         | 178/6.6A         |               |
|                  | 3,836,888     | 9/17/74     | Boenke et al.    | 340/172.5        |               |
|                  | 3,848,082     | 11/12/74    | Summers          | 178/5.6          |               |
|                  | 3,889,054     | 6/10/75     | Nagel et al.     | 178/6.8          |               |
|                  | 3,936,868     | 2/3/76      | Thorpe           | 358/22           |               |
|                  | 3,982,065     | 9/21/76     | Barnaby et al.   | 178/5.8          |               |
|                  | 3,984,637     | 10/5/76     | Caudill et al.   | 179/2            |               |
|                  | 3,996,583     | 12/7/76     | Hutt et al.      | 340/324          |               |
|                  | 4,016,361     | 4/5/77      | Pandey           | 358/83           |               |
|                  | 4,026,555     | 5/31/77     | Kirschner et al. | 273/85           |               |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### U. S. Patent Documents

| Examiner Initial | Patent Number | Patent Date | Name               | Class / Subclass | Filing Date * |
|------------------|---------------|-------------|--------------------|------------------|---------------|
|                  | 4,032,972     | 6/28/77     | Saylor             | 358/142          |               |
|                  | 4,042,958     | 8/16/77     | Saylor et al.      | 358/141          |               |
|                  | 4,052,719     | 10/4/77     | Hutt et al.        | 340/324          |               |
|                  | 4,055,848     | 10/25/77    | Fearnside          | 358/8            |               |
|                  | 4,064,490     | 12/20/77    | Nagel              | 364/200          |               |
|                  | 4,074,315     | 2/14/78     | Kawamura et al.    | 358/142          |               |
|                  | 4,096,524     | 6/20/78     | Scott              | 358/85           |               |
|                  | 4,099,258     | 7/4/78      | Parsons            | 364/900          |               |
|                  | 4,120,003     | 10/10/78    | Mitchell et al.    | 358/142          |               |
|                  | 4,134,127     | 1/9/79      | Campioni           | 358/16           |               |
|                  | 4,135,213     | 1/16/79     | Wintfeld et al.    | 358/142          |               |
|                  | 4,139,860     | 2/13/79     | Micic et al.       | 358/22           |               |
|                  | 4,161,728     | 7/17/79     | Insam              | 340/750          |               |
|                  | 4,162,513     | 7/24/79     | Beyers, Jr. et al. | 358/191          |               |
|                  | 4,178,613     | 12/11/79    | Takahashi et al.   | 358/183          |               |
|                  | 4,203,130     | 5/13/80     | Doumit et al.      | 358/1            |               |
|                  | 4,228,543     | 10/14/80    | Jackson            | 455/181          |               |
|                  | 4,231,031     | 10/28/80    | Crowther et al.    | 340/695          |               |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### U. S. Patent Documents

| Examiner Initial | Patent Number | Patent Date | Name             | Class / Subclass | Filing Date * |
|------------------|---------------|-------------|------------------|------------------|---------------|
|                  | 4,233,628     | 11/11/80    | Ciciora          | 358/147          |               |
|                  | 4,243,984     | 1/6/81      | Ackley et al.    | 340/703          |               |
|                  | 4,245,252     | 1/13/81     | Nagumo           | 358/213          |               |
|                  | 4,249,211     | 2/3/81      | Baba et al.      | 358/183          |               |
|                  | 4,261,006     | 4/7/81      | Weintraub et al. | 358/3            |               |
|                  | 4,270,145     | 5/26/81     | Farina           | 358/188          |               |
|                  | 4,278,973     | 7/14/81     | Hughes et al.    | 340/721          |               |
|                  | 4,278,993     | 7/14/81     | Suzuki           | 358/22           |               |
|                  | 4,308,558     | 12/29/81    | Hernandez et al. | 358/142          |               |
|                  | 4,315,282     | 2/9/82      | Schumacher       | 358/107          |               |
|                  | 4,337,485     | 6/29/82     | Chambers         | 358/147          |               |
|                  | 4,344,090     | 8/10/82     | Belisomi et al.  | 358/183          |               |
|                  | 4,361,848     | 11/30/82    | Poignet et al.   | 358/1            |               |
|                  | 4,374,395     | 2/15/83     | Herrmann et al.  | 358/22           |               |
|                  | 4,405,946     | 9/20/83     | Knight           | 358/192.1        |               |
|                  | 4,412,244     | 10/25/83    | Shanley, II      | 358/22           |               |
|                  | 4,413,281     | 11/1/83     | Thonnart         | 358/147          |               |
|                  | 4,420,769     | 12/13/83    | Novak            | 358/139          |               |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### U. S. Patent Documents

| Examiner Initial | Patent Number | Patent Date | Name            | Class / Subclass | Filing Date * |
|------------------|---------------|-------------|-----------------|------------------|---------------|
|                  | 4,430,669     | 2/7/84      | Cheung          | 358/122          |               |
|                  | 4,449,249     | 5/15/84     | Price           | 455/45           |               |
|                  | 4,450,442     | 5/22/84     | Tanaka          | 340/814          |               |
|                  | 4,456,925     | 6/26/84     | Skeros et al.   | 358/85           |               |
|                  | 4,477,830     | 10/16/84    | Lindman et al.  | 358/1            |               |
|                  | 4,495,654     | 1/22/85     | Deiss           | 455/151          |               |
|                  | 4,496,171     | 1/29/85     | Cherry          | 283/61           |               |
|                  | 4,496,976     | 1/29/85     | Swanson et al.  | 358/147          |               |
|                  | 4,498,098     | 2/5/85      | Stell           | 358/22           |               |
|                  | 4,550,407     | 10/29/85    | Couasnon et al. | 371/29           |               |
|                  | 4,566,034     | 1/21/86     | Harger et al.   | 358/194.1        |               |
|                  | 4,595,951     | 6/17/86     | Filliman        | 358/147          |               |
|                  | 4,614,972     | 9/30/86     | Motsch et al.   | 358/147          |               |
|                  | 4,616,262     | 10/7/86     | Toriumi et al.  | 358/183          |               |
|                  | 4,620,227     | 10/28/86    | Levin et al.    | 358/147          |               |
|                  | 4,620,229     | 10/28/86    | Amano et al.    | 358/194.1        |               |
|                  | 4,626,909     | 12/2/86     | Oniki et al.    | 358/114          |               |
|                  | 4,639,890     | 1/27/87     | Heilveil et al. | 364/900          |               |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### U. S. Patent Documents

| Examiner Initial | Patent Number | Patent Date | Name              | Class / Subclass | Filing Date * |
|------------------|---------------|-------------|-------------------|------------------|---------------|
|                  | 4,663,735     | 5/5/87      | Novak et al.      | 364/900          |               |
|                  | 4,688,197     | 8/18/87     | Novak et al.      | 365/230          |               |
|                  | 4,691,351     | 9/1/87      | Hayashi et al.    | 380/10           |               |
|                  | 4,710,800     | 12/1/87     | Fearing et al.    | 358/22           | 9/16/85       |
|                  | 4,720,819     | 1/19/88     | Pinkham et al.    | 365/219          | 12/30/83      |
|                  | 4,745,549     | 5/17/88     | Hashimoto         | 364/402          | 6/6/86        |
|                  | 4,747,081     | 5/24/88     | Heilveil et al.   | 365/219          | 12/30/83      |
|                  | 4,768,144     | 8/30/88     | Winter et al.     | 364/200          | 10/20/86      |
|                  | 4,768,228     | 8/30/88     | Clupper et al.    | 380/20           | 9/11/87***    |
|                  | 4,829,569     | 5/9/89      | Seth-Smith et al. | 380/10           | 7/8/86        |
|                  | 4,885,775     | 12/5/89     | Lucas             | 380/10           | 9/21/84       |
|                  | 5,163,024     | 11/10/92    | Heilveil et al.   | 365/219          | 5/9/90***     |
|                  | Re. 31,977    | 8/27/85     | Ott               | 364/200          |               |
|                  | Re. 32,187    | 6/17/86     | Barda et al.      | 340/706          |               |

\*

- If pertinent

\*\*\* - Claims priority from patent application filed prior to Sept. 11, 1987

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br>Title: <b>Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### Foreign Patent Documents

| Examiner Initial | Document Number | Publication Date | Country                | Class / Subclass | Translation |    |
|------------------|-----------------|------------------|------------------------|------------------|-------------|----|
|                  |                 |                  |                        |                  | Yes         | No |
|                  | 60-61935        | 4/9/85           | Japan                  | G11B15/02        | abs.        |    |
|                  | 61-50470        | 3/12/86          | Japan                  | H04N 5/44        | abs.        |    |
|                  | 0 133 985       | 3/13/85          | European Patent Office | H 04 N 7/087     | abs.        |    |
|                  | 1,066,931       | 4/26/67          | Great Britain          | G 07c            |             | No |

### Other Documents

| Examiner Initial | Author, Title, Date, Pertinent Pages, Etc.  |
|------------------|---|
|                  | Gecsei, Jan. <u>The Architecture of Videotex Systems</u> (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1983), pp. 174-177, 233-238.   |
|                  | Sigel, Efrem et al. <u>The Future of Videotext: Worldwide Prospects for Home/Office Electronic Information Services</u> (White Plains, N.Y.: Knowledge Industry Publications, Inc., 1983), pp. 28, 119-126.             |
|                  | Raggett, Michael. "Broadcast Telesoftware," <u>Computer Graphics World</u> , Vol. 6, No. 9, September 1983, table of contents, pp. 49, 50, 52 and letters.  |
|                  | Tydeman, John et al. <u>Teletex and Videotex in the United States: Market Potential, Technology, Public Policy Issues</u> , Institute for the Future (New York: McGraw-Hill Publications, 1982), pp. 4, 89-99, 122-169. |
|                  | "Telesoftware and Education Project: Summary of Report," A Joint BBC/ITV & Brighton Research Project, Summer 1982, 111 p. and appendix.   |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### Other Documents

| Examiner Initial | Author, Title, Date, Pertinent Pages, Etc.  |
|------------------|---|
|                  | Damouny, N.G. "Teletext Decoders - Keeping Up with the Latest Technology Advances," <u>Consumer Electronics</u> , Vol. CE-30, No. 3, August 1984, pp. 429-436.  |
|                  | Nishimoto, Naomichi et al. "VHS VCR with Index and Address Search Systems," <u>Consumer Electronics</u> , Vol. CE-33, No. 3 August 1987, pp. 220-225.   |
|                  | Weissman, Steven B. "Teletext in transactional videotex," <u>Electronic Publishing Review</u> , Vol. 2, No. 4, 1982, pp. 301-304.   |
|                  | Crowther, G.O. "Teletext Enhancements - Levels 1, 2 and 3," <u>IBA Technical Review</u> , May 1983, pp. 11-16.  |
|                  | McIntyre, Colin, "Broadcast teletext - who says it isn't interactive?" pp. 1-12 in: Anon. <u>Videotex-key to the information revolution</u> (Online Publications Ltd., 1982).                         |
|                  | Veith, Richard H., "Television's Teletext," Elsevier Science Publishing, Inc., New York, 1983, pp. 9, 12, 17, 19, 32, 46-47, 136-137, 139.  |
|                  | Alber, Antone F., "Videotex/Teletext, Principles and Practices," McGraw-Hill Book Company, pp. 37, 138-139, 142-147, 188-191.   |
|                  | Russell, R.T. "Teletext remote control," part 1, <u>Wireless World</u> , April 1979, 4 pages.   |
|                  | Russell, R.T. "Teletext remote control", part 2, <u>Wireless World</u> , May 1979, pp. 83-86.   |
|                  | Pandey, K. "Second generation teletext and viewdata decoders," <u>Proceedings IEE</u> , Vol. 126, December 1979, pp. 1367-1373.   |
|                  | Hedger, J. et al. "Telesoftware: adding intelligence to teletext," <u>Proceedings IEE</u> , Vol. 126, December 1979, pp. 1412-1416  |
|                  | Sigel, Efrem et al. <u>Videotext: The Coming Revolution in Home/Office Information Retrieval</u> , (White Plains, NY: Knowledge Industry Publications, Inc., 1980), pp. 6, 7, 13, 28, 33, 34, 36, 37. |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### Other Documents

| Examiner Initial | Author, Title, Date, Pertinent Pages, Etc.   |
|------------------|--|
|                  | Roizen, Joseph. "Teletext in the USA," <u>SMPTE Journal</u> , Vol. 90, July 1981, pp. 602-610.   |
|                  | Money, Steve A. <u>Teletext and Viewdata</u> (London: Butterworth & Co., Ltd., 1981), preface, pp. 1-145, glossary and index.  |
|                  | Risher, Carol A. "Electronic Media and the Publishers, Part 1: Teletext," <u>Videodisc Videotex</u> , Vol. 1, No. 3, Summer 1981, pp. 162-167.   |
|                  | Chew, J.R. "CEEFAQ: evolution and potential," BBC Research Department Report No. BBC RD 1977/26, August 1977, table of contents, pp. 1-14 and appendix.  |
|                  | Hedger, John. "Telesoftware: Home computing via teletext," <u>Wireless World</u> , November 1978, pp. 61-64.   |
|                  | Anon. <u>VIDEOTEX '81</u> , International Conference & Exhibition, May 20-22, 1981, Toronto, Canada (Northwood Hills, UK: Online Conferences, Ltd; 1981), pp. 78-84.                                   |
|                  | Winsbury, Rex, ed. <u>Viewdata in Action: A Comparative Study of Prestel</u> (London: McGraw-Hill, Ltd., 1981), pp. 10-12, 31, 35, 36, 57-61, 102, 103, 109, 202-204, 211-219.                         |
|                  | "Colloquium on Broadcast and Wired Teletext Systems - Ceefax, Oracle, Viewdata," Tuesday, 13 January 1976, IEE Electronics Division, Professional Group E14 (Television and Sound), Digest No. 1976/3. |
|                  | Anon. "Updating databases by off-peak TV," <u>New Scientist</u> , 21 October 1976, p. 162.   |
|                  | Marti, Bernard. "New Ancillary Services Using a Television Channel," <u>SMPTE Journal</u> , Vol. 86, November 1977, pp. 815, 817, 818.   |
|                  | Biggs, A.J. et al. "Broadcast data in television," <u>GEC Journal of Science and Technology</u> , Vol. 41, No. 4, 1974, pp. 117-124.   |
|                  | Heuer, D.A. "A Microprocessor Controlled Memory Tuning System," <u>Consumer Electronics</u> , Vol. CE-25, No. 4, August 1979, pp. 677-683.   |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

|  |  |                          |
|--|--|--------------------------|
| <b>Information Disclosure Statement by Applicant</b><br><br><b>Title: Signal Processing Apparatus and Method</b> | Attorney Docket No.<br>5634.114                            | Serial No.<br>08/444,758 |
|  | Applicant(s)<br>John C. Harvey <i>and</i> James W. Cuddihy |                          |
|  | Filing Date<br>May 19, 1995                                | Group<br>2602/348        |

### Other Documents

| Examiner Initial | Author, Title, Date, Pertinent Pages, Etc.   |
|------------------|--|
|                  | Marti, Bernard et al. "ANTIOPE, service de télétexte," journal unk., pp. 17-22.  |
|                  | Lipoff, Stuart J. "Mass Market Potential for Home Terminals," <u>Consumer Electronics</u> , vol. unk., pp. 169-184.  |
|                  | Crowther, G.O., "Adaptation of U.K. Teletext System for 525/60 Operation," <u>IEEE Transactions on Consumer Electronics</u> , Vol. CE-26, Aug. 1980, pp. 587-599.  |
|                  | Gosch, John, "Code accompanying TV program turns on video cassette recorder in proposed scheme," <u>Electronics</u> , Feb. 10, 1981, pp. 80-82.  |
|                  | Somers, Eric, "Appropriate Technology for Text Broadcasting," <u>Viewdata and Videotext, 1980-81: A Worldwide Report</u> , Transcript of viewdata '80, first world conference on viewdata, videotex, and teletext, Knowledge Industry Publications, Inc., White Plains, New York, Copyright 1980 by Online Conferences, Ltd., pp. 499-514. |
|                  | Dages, Charles L., "Playcable: A Technological Alternative for Information Services," <u>IEEE Transactions on Consumer Electronics</u> , Vol. CE-26, Aug. 1980, pp. 482-486.   |
|                  | Norris, Bryan L. et al., "Teletext Data Decoding," <u>IEEE Transactions on Consumer Electronics</u> , Aug. 1976, pp. 248-253.  |
|                  | Kokado, N. et al., "A Programmable TV Receiver," <u>IEEE Transactions on Consumer Electronics</u> , Vol. 22, No. 1, Feb. 1976, pp. 69-83.  |

|  |                 |
|--|-----------------|
| Examiner   | Date Considered |
| <b>Examiner:</b> Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :  
**John C. Harvey and James W. Cuddihy** : Examiner:  
Serial No. 08/444,758 : Group Unit: 2602  
Filed 19-May-95 : Atty Dkt: 5634.114  
For **SIGNAL PROCESSING APPARATUS AND METHODS**

**COPENDING RELATED U.S. PATENT APPLICATIONS**

Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

Listed below are copending U.S. patent applications related to this application.

| <u><b>Application No.</b></u> | <u><b>Filing Date</b></u> | <u><b>Atty. Dkt.</b></u> |
|-------------------------------|---------------------------|--------------------------|
| 08/113,329                    | 30-Aug-93                 | 5634.008                 |
| 08/397,371                    | 2-March-95                | 5634.017                 |
| 08/397,582                    | 2-March-95                | 5634.010                 |
| 08/397,636                    | 2-March-95                | 5634.012                 |
| 08/435,757                    | 9-May-95                  | 5634.036                 |
| 08/435,758                    | 9-May-95                  | 5634.041                 |
| 08/437,044                    | 9-May-95                  | 5634.047                 |
| 08/437,045                    | 9-May-95                  | 5634.042                 |
| 08/437,629                    | 9-May-95                  | 5634.044                 |
| 08/437,635                    | 9-May-95                  | 5634.045                 |
| 08/437,791                    | 9-May-95                  | 5634.040                 |
| 08/437,819                    | 9-May-95                  | 5634.049                 |
| 08/437,864                    | 9-May-95                  | 5634.038                 |
| 08/437,887                    | 9-May-95                  | 5634.037                 |
| 08/437,937                    | 9-May-95                  | 5634.048                 |
| 08/438,011                    | 9-May-95                  | 5634.050                 |
| 08/438,206                    | 9-May-95                  | 5634.039                 |

|            |           |          |
|------------|-----------|----------|
| 08/438,216 | 9-May-95  | 5634.046 |
| 08/438,659 | 9-May-95  | 5634.043 |
| 08/439,668 | 15-May-95 | 5634.062 |
| 08/439,670 | 15-May-95 | 5634.081 |
| 08/440,657 | 15-May-95 | 5634.051 |
| 08/440,837 | 15-May-95 | 5634.059 |
| 08/441,027 | 16-May-95 | 5634.053 |
| 08/441,033 | 15-May-95 | 5634.060 |
| 08/441,575 | 15-May-95 | 5634.056 |
| 08/441,577 | 15-May-95 | 5634.080 |
| 08/441,701 | 15-May-95 | 5634.052 |
| 08/441,749 | 16-May-95 | 5634.082 |
| 08/441,821 | 16-May-95 | 5634.085 |
| 08/441,880 | 16-May-95 | 5634.075 |
| 08/441,942 | 16-May-95 | 5634.061 |
| 08/441,996 | 16-May-95 | 5634.086 |
| 08/442,165 | 16-May-95 | 5634.087 |
| 08/442,327 | 16-May-95 | 5634.083 |
| 08/442,335 | 16-May-95 | 5634.088 |
| 08/442,369 | 16-May-95 | 5634.055 |
| 08/442,383 | 16-May-95 | 5634.074 |
| 08/442,505 | 16-May-95 | 5634.084 |
| 08/442,507 | 16-May-95 | 5634.089 |
| 08/444,643 | 19-May-95 | 5634.111 |
| 08/444,756 | 19-May-95 | 5634.107 |
| 08/444,757 | 19-May-95 | 5634.103 |
| 08/444,758 | 19-May-95 | 5634.114 |
| 08/444,781 | 19-May-95 | 5634.110 |
| 08/444,786 | 19-May-95 | 5634.100 |
| 08/444,787 | 19-May-95 | 5634.118 |
| 08/444,788 | 19-May-95 | 5634.109 |
| 08/444,887 | 19-May-95 | 5634.115 |
| 08/445,045 | 19-May-95 | 5634.108 |
| 08/445,054 | 19-May-95 | 5634.101 |
| 08/445,290 | 19-May-95 | 5634.113 |
| 08/445,294 | 19-May-95 | 5634.119 |
| 08/445,296 | 19-May-95 | 5634.105 |
| 08/445,328 | 19-May-95 | 5634.112 |
| 08/446,123 | 19-May-95 | 5634.116 |
| 08/446,124 | 19-May-95 | 5634.117 |
| 08/446,429 | 22-May-95 | 5634.151 |
| 08/446,430 | 22-May-95 | 5634.152 |
| 08/446,431 | 22-May-95 | 5634.150 |
| 08/446,432 | 22-May-95 | 5634.149 |
| 08/446,494 | 22-May-95 | 5634.154 |

|            |           |          |
|------------|-----------|----------|
| 08/446,553 | 19-May-95 | 5634.104 |
| 08/446,579 | 19-May-95 | 5634.106 |
| 08/447,380 | 24-May-95 | 5634.125 |
| 08/447,414 | 23-May-95 | 5634.122 |
| 08/447,415 | 23-May-95 | 5634.129 |
| 08/447,416 | 23-May-95 | 5634.128 |
| 08/447,446 | 23-May-95 | 5634.135 |
| 08/447,447 | 23-May-95 | 5634.140 |
| 08/447,448 | 23-May-95 | 5634.132 |
| 08/447,449 | 23-May-95 | 5634.138 |
| 08/447,496 | 23-May-95 | 5634.121 |
| 08/447,502 | 23-May-95 | 5634.143 |
| 08/447,529 | 24-May-95 | 5634.144 |
| 08/447,611 | 23-May-95 | 5634.137 |
| 08/447,621 | 23-May-95 | 5634.156 |
| 08/447,679 | 23-May-95 | 5634.130 |
| 08/447,711 | 23-May-93 | 5634.153 |
| 08/447,712 | 23-May-95 | 5634.127 |
| 08/447,724 | 23-May-95 | 5634.131 |
| 08/447,726 | 23-May-95 | 5634.159 |
| 08/447,826 | 23-May-95 | 5634.126 |
| 08/447,908 | 23-May-95 | 5634.134 |
| 08/447,938 | 23-May-95 | 5634.133 |
| 08/447,974 | 23-May-95 | 5634.145 |
| 08/447,977 | 23-May-95 | 5634.141 |
| 08/448,099 | 23-May-95 | 5634.158 |
| 08/448,116 | 23-May-95 | 5634.157 |
| 08/448,141 | 23-May-95 | 5634.155 |
| 08/448,143 | 23-May-95 | 5634.120 |
| 08/448,175 | 23-May-95 | 5634.102 |
| 08/448,251 | 23-May-95 | 5634.142 |
| 08/448,309 | 23-May-95 | 5634.139 |
| 08/448,326 | 23-May-95 | 5634.123 |
| 08/448,643 | 24-May-95 | 5634.072 |
| 08/448,644 | 24-May-95 | 5634.163 |
| 08/448,662 | 24-May-95 | 5634.201 |
| 08/448,667 | 24-May-95 | 5634.179 |
| 08/448,794 | 24-May-95 | 5634.203 |
| 08/448,810 | 24-May-95 | 5634.177 |
| 08/448,833 | 24-May-95 | 5634.162 |
| 08/448,915 | 24-May-95 | 5634.069 |
| 08/448,916 | 24-May-95 | 5634.209 |
| 08/448,917 | 24-May-95 | 5634.165 |
| 08/448,976 | 24-May-95 | 5634.161 |
| 08/448,977 | 24-May-95 | 5634.071 |

|            |           |          |
|------------|-----------|----------|
| 08/448,978 | 24-May-95 | 5634.181 |
| 08/448,979 | 24-May-95 | 5634.207 |
| 08/449,097 | 24-May-95 | 5634.208 |
| 08/449,110 | 24-May-95 | 5634.204 |
| 08/449,248 | 24-May-95 | 5634.171 |
| 08/449,263 | 24-May-95 | 5634.172 |
| 08/449,281 | 24-May-95 | 5634.183 |
| 08/449,291 | 24-May-95 | 5634.068 |
| 08/449,302 | 24-May-95 | 5634.147 |
| 08/449,351 | 24-May-95 | 5634.170 |
| 08/449,369 | 24-May-95 | 5634.058 |
| 08/449,411 | 24-May-95 | 5634.180 |
| 08/449,413 | 24-May-95 | 5634.174 |
| 08/449,523 | 24-May-95 | 5634.182 |
| 08/449,530 | 24-May-95 | 5634.124 |
| 08/449,531 | 24-May-95 | 5634.176 |
| 08/449,532 | 24-May-95 | 5634.205 |
| 08/449,652 | 24-May-95 | 5634.146 |
| 08/449,697 | 24-May-95 | 5634.175 |
| 08/449,702 | 24-May-95 | 5634.202 |
| 08/449,717 | 24-May-95 | 5634.067 |
| 08/449,718 | 24-May-95 | 5634.164 |
| 08/449,798 | 24-May-95 | 5634.206 |
| 08/449,800 | 24-May-95 | 5634.184 |
| 08/449,829 | 24-May-95 | 5634.178 |
| 08/449,867 | 24-May-95 | 5634.169 |
| 08/449,901 | 23-May-95 | 5634.136 |
| 08/450,680 | 24-May-95 | 5634.200 |
| 08/451,203 | 26-May-95 | 5634.079 |
| 08/451,377 | 26-May-95 | 5634.070 |
| 08/451,496 | 26-May-95 | 5634.057 |
| 08/451,746 | 26-May-95 | 5634.078 |
| 08/452,395 | 26-May-95 | 5634.065 |
| 08/458,566 | 2-Jun-95  | 5634.230 |
| 08/458,699 | 2-Jun-95  | 5634.247 |
| 08/458,760 | 2-Jun-95  | 5634.217 |
| 08/459,216 | 2-Jun-95  | 5634.218 |
| 08/459,217 | 2-Jun-95  | 5634.231 |
| 08/459,218 | 2-Jun-95  | 5634.256 |
| 08/459,506 | 2-Jun-95  | 5634.224 |
| 08/459,507 | 2-Jun-95  | 5634.232 |
| 08/459,521 | 2-Jun-95  | 5634.233 |
| 08/459,522 | 2-Jun-95  | 5634.238 |
| 08/459,788 | 2-Jun-95  | 5634.243 |
| 08/460,043 | 2-Jun-95  | 5634.215 |

|            |          |          |
|------------|----------|----------|
| 08/460,081 | 2-Jun-95 | 5634.240 |
| 08/460,085 | 2-Jun-95 | 5634.239 |
| 08/460,120 | 2-Jun-95 | 5634.214 |
| 08/460,187 | 2-Jun-95 | 5634.220 |
| 08/460,240 | 2-Jun-95 | 5634.241 |
| 08/460,256 | 2-Jun-95 | 5634.254 |
| 08/460,274 | 2-Jun-95 | 5634.236 |
| 08/460,387 | 2-Jun-95 | 5634.219 |
| 08/460,394 | 2-Jun-95 | 5634.222 |
| 08/460,401 | 2-Jun-95 | 5634.242 |
| 08/460,556 | 2-Jun-95 | 5634.248 |
| 08/460,557 | 2-Jun-95 | 5634.245 |
| 08/460,591 | 2-Jun-95 | 5634.216 |
| 08/460,592 | 2-Jun-95 | 5634.225 |
| 08/460,634 | 2-Jun-95 | 5634.246 |
| 08/460,642 | 2-Jun-95 | 5634.244 |
| 08/460,668 | 2-Jun-95 | 5634.211 |
| 08/460,677 | 2-Jun-95 | 5634.221 |
| 08/460,711 | 2-Jun-95 | 5634.212 |
| 08/460,713 | 2-Jun-95 | 5634.253 |
| 08/460,743 | 2-Jun-95 | 5634.229 |
| 08/460,765 | 2-Jun-95 | 5634.255 |
| 08/460,766 | 2-Jun-95 | 5634.249 |
| 08/460,770 | 2-Jun-95 | 5634.237 |
| 08/460,793 | 2-Jun-95 | 5634.213 |
| 08/460,817 | 2-Jun-95 | 5634.223 |
| 08/466,887 | 6-Jun-95 | 5634.281 |
| 08/466,888 | 6-Jun-95 | 5634.270 |
| 08/466,890 | 6-Jun-95 | 5634.298 |
| 08/466,894 | 6-Jun-95 | 5634.276 |
| 08/467,045 | 6-Jun-95 | 5634.285 |
| 08/467,904 | 6-Jun-95 | 5634.284 |
| 08/468,044 | 6-Jun-95 | 5634.282 |
| 08/468,323 | 6-Jun-95 | 5634.292 |
| 08/468,324 | 6-Jun-95 | 5634.259 |
| 08/468,641 | 6-Jun-95 | 5634.263 |
| 08/468,736 | 6-Jun-95 | 5634.277 |
| 08/468,994 | 6-Jun-95 | 5634.297 |
| 08/469,056 | 6-Jun-95 | 5634.264 |
| 08/469,059 | 6-Jun-95 | 5634.288 |
| 08/469,078 | 6-Jun-95 | 5634.279 |
| 08/469,103 | 6-Jun-95 | 5634.300 |
| 08/469,106 | 6-Jun-95 | 5634.266 |
| 08/469,107 | 6-Jun-95 | 5634.294 |
| 08/469,108 | 6-Jun-95 | 5634.269 |

|            |          |          |
|------------|----------|----------|
| 08/469,109 | 6-Jun-95 | 5634.296 |
| 08/469,355 | 6-Jun-95 | 5634.260 |
| 08/469,496 | 6-Jun-95 | 5634.290 |
| 08/469,517 | 6-Jun-95 | 5634.287 |
| 08/469,612 | 6-Jun-95 | 5634.280 |
| 08/469,623 | 6-Jun-95 | 5634.273 |
| 08/469,624 | 6-Jun-95 | 5634.262 |
| 08/469,626 | 6-Jun-95 | 5634.272 |
| 08/470,051 | 6-Jun-95 | 5634.268 |
| 08/470,052 | 6-Jun-95 | 5634.302 |
| 08/470,053 | 6-Jun-95 | 5634.291 |
| 08/470,054 | 6-Jun-95 | 5634.265 |
| 08/470,236 | 6-Jun-95 | 5634.278 |
| 08/470,447 | 6-Jun-95 | 5634.275 |
| 08/470,448 | 6-Jun-95 | 5634.293 |
| 08/470,476 | 6-Jun-95 | 5634.301 |
| 08/470,570 | 6-Jun-95 | 5634.289 |
| 08/470,571 | 6-Jun-95 | 5634.261 |
| 08/471,024 | 6-Jun-95 | 5634.299 |
| 08/471,191 | 6-Jun-95 | 5634.267 |
| 08/471,238 | 6-Jun-95 | 5634.271 |
| 08/471,239 | 6-Jun-95 | 5634.283 |
| 08/471,240 | 6-Jun-95 | 5634.286 |
| 08/472,066 | 6-Jun-95 | 5634.295 |
| 08/472,399 | 7-Jun-95 | 5634.305 |
| 08/472,462 | 7-Jun-95 | 5634.315 |
| 08/472,980 | 7-Jun-95 | 5634.353 |
| 08/473,213 | 7-Jun-95 | 5634.320 |
| 08/473,224 | 7-Jun-95 | 5634.187 |
| 08/473,484 | 7-Jun-95 | 5634.258 |
| 08/473,927 | 7-Jun-95 | 5634.333 |
| 08/473,996 | 7-Jun-95 | 5634.073 |
| 08/473,997 | 7-Jun-95 | 5634.364 |
| 08/473,998 | 7-Jun-95 | 5634.328 |
| 08/473,999 | 7-Jun-95 | 5634.342 |
| 08/474,119 | 7-Jun-95 | 5634.330 |
| 08/474,139 | 7-Jun-95 | 5634.324 |
| 08/474,145 | 7-Jun-95 | 5634.303 |
| 08/474,146 | 7-Jun-95 | 5634.186 |
| 08/474,147 | 7-Jun-95 | 5634.226 |
| 08/474,496 | 7-Jun-95 | 5634.360 |
| 08/474,674 | 7-Jun-95 | 5634.319 |
| 08/474,963 | 7-Jun-95 | 5634.098 |
| 08/474,964 | 7-Jun-95 | 5634.064 |
| 08/475,341 | 7-Jun-95 | 5634.160 |

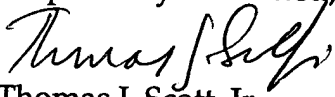
|            |          |          |
|------------|----------|----------|
| 08/475,342 | 7-Jun-95 | 5634.234 |
| 08/477,547 | 7-Jun-95 | 5634.329 |
| 08/477,564 | 7-Jun-95 | 5634.340 |
| 08/477,570 | 7-Jun-95 | 5634.335 |
| 08/477,660 | 7-Jun-95 | 5634.090 |
| 08/477,711 | 7-Jun-95 | 5634.312 |
| 08/477,712 | 7-Jun-95 | 5634.173 |
| 08/477,805 | 7-Jun-95 | 5634.197 |
| 08/477,955 | 7-Jun-95 | 5634.188 |
| 08/478,044 | 7-Jun-95 | 5634.334 |
| 08/478,107 | 7-Jun-95 | 5634.309 |
| 08/478,544 | 7-Jun-95 | 5634.306 |
| 08/478,663 | 7-Jun-95 | 5634.099 |
| 08/478,767 | 7-Jun-95 | 5634.316 |
| 08/478,794 | 7-Jun-95 | 5634.347 |
| 08/478,858 | 7-Jun-95 | 5634.351 |
| 08/478,864 | 7-Jun-95 | 5634.167 |
| 08/478,908 | 7-Jun-95 | 5634.313 |
| 08/479,042 | 7-Jun-95 | 5634.352 |
| 08/479,215 | 7-Jun-95 | 5634.358 |
| 08/479,216 | 7-Jun-95 | 5634.341 |
| 08/479,217 | 7-Jun-95 | 5634.093 |
| 08/479,374 | 7-Jun-95 | 5634.148 |
| 08/479,375 | 7-Jun-95 | 5634.326 |
| 08/479,414 | 7-Jun-95 | 5634.359 |
| 08/479,523 | 7-Jun-95 | 5634.365 |
| 08/479,524 | 7-Jun-95 | 5634.054 |
| 08/479,667 | 7-Jun-95 | 5634.192 |
| 08/480,059 | 7-Jun-95 | 5634.063 |
| 08/480,060 | 7-Jun-95 | 5634.227 |
| 08/480,383 | 7-Jun-95 | 5634.349 |
| 08/480,392 | 7-Jun-95 | 5634.310 |
| 08/480,740 | 7-Jun-95 | 5634.343 |
| 08/481,074 | 7-Jun-95 | 5634.190 |
| 08/482,573 | 7-Jun-95 | 5634.096 |
| 08/482,574 | 7-Jun-95 | 5634.210 |
| 08/482,857 | 7-Jun-95 | 5634.311 |
| 08/483,054 | 7-Jun-95 | 5634.195 |
| 08/483,169 | 7-Jun-95 | 5634.338 |
| 08/483,174 | 7-Jun-95 | 5634.251 |
| 08/483,269 | 7-Jun-95 | 5634.307 |
| 08/483,980 | 7-Jun-95 | 5634.066 |
| 08/484,275 | 7-Jun-95 | 5634.323 |
| 08/484,276 | 7-Jun-95 | 5634.092 |
| 08/484,858 | 7-Jun-95 | 5634.362 |

|            |          |          |
|------------|----------|----------|
| 08/484,865 | 7-Jun-95 | 5634.348 |
| 08/485,282 | 7-Jun-95 | 5634.361 |
| 08/485,283 | 7-Jun-95 | 5634.199 |
| 08/485,507 | 7-Jun-95 | 5634.304 |
| 08/485,772 | 7-Jun-95 | 5634.332 |
| 08/485,775 | 7-Jun-95 | 5634.077 |
| 08/486,258 | 7-Jun-95 | 5634.357 |
| 08/486,259 | 7-Jun-95 | 5634.257 |
| 08/486,265 | 7-Jun-95 | 5634.228 |
| 08/486,266 | 7-Jun-95 | 5634.337 |
| 08/486,297 | 7-Jun-95 | 5634.331 |
| 08/487,155 | 7-Jun-95 | 5634.308 |
| 08/487,397 | 7-Jun-95 | 5634.250 |
| 08/487,408 | 7-Jun-95 | 5634.356 |
| 08/487,410 | 7-Jun-95 | 5634.314 |
| 08/487,411 | 7-Jun-95 | 5634.318 |
| 08/487,428 | 7-Jun-95 | 5634.363 |
| 08/487,506 | 7-Jun-95 | 5634.350 |
| 08/487,516 | 7-Jun-95 | 5634.094 |
| 08/487,526 | 7-Jun-95 | 5634.355 |
| 08/487,536 | 7-Jun-95 | 5634.097 |
| 08/487,546 | 7-Jun-95 | 5634.325 |
| 08/487,556 | 7-Jun-95 | 5634.321 |
| 08/487,565 | 7-Jun-95 | 5634.327 |
| 08/487,649 | 7-Jun-95 | 5634.344 |
| 08/487,851 | 7-Jun-95 | 5634.252 |
| 08/487,893 | 7-Jun-95 | 5634.191 |
| 08/487,980 | 7-Jun-95 | 5634.076 |
| 08/487,981 | 7-Jun-95 | 5634.196 |
| 08/487,982 | 7-Jun-95 | 5634.095 |
| 08/487,984 | 7-Jun-95 | 5634.346 |
| 08/488,032 | 7-Jun-95 | 5634.189 |
| 08/488,058 | 7-Jun-95 | 5634.322 |
| 08/488,378 | 7 Jun 95 | 5634.339 |
| 08/488,383 | 7-Jun-95 | 5634.166 |
| 08/488,436 | 7-Jun-95 | 5634.336 |
| 08/488,438 | 7-Jun-95 | 5634.235 |
| 08/488,439 | 7-Jun-95 | 5634.185 |
| 08/488,619 | 7-Jun-95 | 5634.317 |
| 08/488,620 | 7-Jun-95 | 5634.354 |
| 08/498,002 | 7-Jun-95 | 5634.345 |
| 08/511,491 | 6-Jun-95 | 5634.274 |

**REMARKS**

In accordance with the duty of disclosure under 37 C.F.R. § 1.56(a), Applicants herewith submit a reference to all related copending U.S. Patent Applications now pending before the U.S. Patent and Trademark Office.

Date: December 13, 1995  
**HOWREY & SIMON**  
1299 Pennsylvania Avenue, NW  
Washington, D.C. 20004  
Tel: (202) 383-6614

Respectfully submitted,  
  
Thomas J. Scott, Jr.  
Reg. No. 27,836  
Attorney for Applicants